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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/378,666	08/20/1999	DAVID JOHN WATSON	60046/JPW/JH	9407

7590

12/04/2002

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EXAMINER

NGUYEN, SANG H

ART UNIT	PAPER NUMBER
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2877

DATE MAILED: 12/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/378,666

Applicant(s)

WATSON ET AL.

Examiner

Sang H Nguyen

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-- Th MAILING DATE of this communication appears on the cover sheet with the corresponding address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 14-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 14-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Continued Prosecution Application

1. The request filed on 10/22/02 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/378,666 is acceptable and a CPA has been established. An action on the CPA follows.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 23 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 23 recites the limitation "said angle at which the second detection means" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-2 and 14-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Igushi (U.S. Patent No. 5,796,480)

Regarding claims 1-2, 14-18, and 22; Igushi teaches that a particle size distribution analysis apparatus comprising a sample measurement zone or a measuring flow cell (11 of figure 1) contained a sample of particles (col.1 lines 59-61), a light emitting means is considered to be a laser device (17 of figure 1) for providing a light incident upon the sample measurement zone (11 of figure 1), and at least a first detection means and a second detection means (21,27 of figure 1) for measuring light levels at particular scattering angles (col.2 lines 19-25) and output signals to a computation means (22,23,24,25 of figure 1) enabling a particle size distribution of particles contained within the sample to be determined, wherein the computation means (22,23,24,25 of figure 1)) is calculated the particle size distribution taking into account, for each of the scattering angles, reflection, by at least one window (16a,16b of figure 1) of the measurement zone (11 of figure 1), of light that previously been scattered by the particles (col.4 lines 12-51 and col.5 lines 41-64). See figures 1-3.

Regarding claims 23-24, figure 1 of Igushi teaches that the angle at the second detection means is inclined relative to a beam of the light emitted from the light emitting means is equal to 180 degrees minus (-) the angle at the first detection means is inclined relative to the beam of light and the computation means for modifying the measurements taken from the second detection means based upon measurements taken from the first detection means.

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Regarding claims 25-27; Igushi discloses the first detection means comprises a large angle detector, wherein the large angle detector is situated substantially in the range 90 degrees to 0 degree or in the range of 70 degrees to 40 degrees from the axis of a beam of light emitted. (See figure 1).

Regarding claims 28-32; Igushi teaches that the second detection means comprises a back scatter detector (27 of figure 1 is the same side with laser 17) is situated at an obtuse angle from the axis of a beam of the light emitted from the light emitting means (17 of figure 1).

Regarding claims 19-21 and 32; Igushi et al discloses a plurality of the first and the second detection means are inclined symmetrically relative to the measurement zone. See figure 1.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Rhiner (5,012,119) discloses method and apparatus for monitoring particles using back-scattered light without interference by bubbles; Tatsumo (4,801,205) discloses particle diameter measuring apparatus; Gravatt, Jr. (3,901,602) discloses light scattering method and apparatus for particulate matter; or Trainer (5,416,580) discloses method and apparatus for determining small particle size distribution utilizing multiple light beams.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Sang Nguyen whose telephone number is (703) 308-6426. The examiner can normally be reached on Monday through Friday from 8:30 am to 5:00 pm.

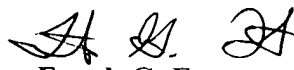
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Frank Font, can be reached on (703) 308-4881. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7722 or 7724.

Any inquiry of general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

SN

Nguyen/ sn

November 26, 2002


Frank G. Font
Supervisory Patent Examiner
Art Unit 2877
Technology Center 2800